

County of Loudoun
Department of Planning
MEMORANDUM

DATE: January 5, 2009

TO: Sophia Fisher, Project Manager, Land Use Review

FROM: Pat Giglio, Planner, Community Planning

SUBJECT: SPEX 2009-0032, SPMI 2009-0010 and CMPT 2009-0011
Arcola Substation

EXECUTIVE SUMMARY

The applicant, Northern Virginia Electrical Cooperative (NOVEC), is requesting a Special Exception (SPEX) to expand an existing utility substation, and a Minor Special Exception (SPMI) to modify the landscape buffer requirements. A Commission Permit (CMPT) is also required for the proposed use on the subject site. The approximately 3.88 acre subject site is located within the Transition Policy area approximately one-half mile north of the Prince William County boundary east of Lightridge Farm Road. The subject site is zoned Transition Residential-3 (TR3LF and TR3UBF) and is governed under the provisions of the Revised 1993 Zoning Ordinance. The subject site will be occupied by a variety of ground-mounted equipment and overhead wiring related to the adjoining existing utility substation located to the west operated by NOVEC. The use of the subject site and expansion of the existing utility substation is in conformance with the land use and energy policies of the Revised General Plan. However, additional information pertaining to the buffering and screening of the existing compound and proposed lighting for the subject site have been requested to further evaluate the application.

BACKGROUND

The applicant, Northern Virginia Electrical Cooperative (NOVEC), is requesting a Special Exception (SPEX) to expand an existing utility substation, and a Minor Special Exception (SPMI) to modify the landscape buffer requirements. A Commission Permit (CMPT) is also required for the proposed use on the subject site. The subject site is located east of Lightridge Farm Road, two miles south of Braddock Road and one-half mile north of the Prince William County boundary in Aldie. The approximately 3.88 acre subject site is occupied by an existing electrical substation (90' x 261') which abuts Lightridge Farm Road and features a variety of ground-mounted equipment and overhead wiring. The existing

electrical substation compound is surrounded by a chain link fence, no landscape buffering or screening are present. The proposed substation expansion will include the enlargement of the existing compound towards the east to incorporate additional ground-mounted equipment. The expanded compound will be surrounded by a chain link fence with a landscape buffer around the perimeter of the property. An existing utility substation and high-voltage overhead transmission corridor owned and operated by the Virginia Electric and Power Company (VEPCO) abuts the southeastern boundary of the subject site and is connected to the existing NOVEC substation by wiring.

The subject site is zoned Transition Residential-3 (TR3LF and TR3UBF) and is governed under the provisions of the Revised 1993 Zoning Ordinance. A Special Exception is required for the proposed "utility substation" within the zoning district. A Commission Permit is also required when a public utility or public service facility is constructed. A Commission Permit is used to determine if the general location, character, and extent of a proposal is in substantial accord with the Comprehensive Plan. An approved Commission Permit was never issued for the existing substation; therefore a Commission Permit is required for the existing and proposed "utility substation" on the subject site.

A review of County GIS records did not identify any environmental features on the subject site that would be impacted by the proposed expansion of the existing equipment compound.

COMPREHENSIVE PLAN CONFORMANCE

The site is located in the Lower Foley and Upper Foley sub-areas of the Transition Policy Area and is governed under the policies of the Revised General Plan (the Plan)(Revised General Plan, Chapter 8, Transition Policy Areas Subareas, Map). The County's vision for the Transition Policy Area is for land uses that provide a visual and spatial transition between the suburban development to the east and the rural development to the west.

The land use policies in Chapter 8 for the Transition Policy Area and the energy policies in Chapter 2 of the Revised General Plan were used to evaluate the application.

ANALYSIS

A. LAND USE

The Transition Policy Area is envisioned to be a distinct planning area that will provide a transition in land development intensity between suburban development in the east and rural development in the west (Revised General Plan, Chapter 8, Land Use Pattern, text). The subject site is located in Lower Foley and Upper Foley sub-areas of the Transition Policy Area, which the Plan envisions to develop at a density of 1 dwelling per 3 acres with a minimum of 50

percent of the site maintained as open space Revised General Plan, Chapter 8, Community Design Policies 3 & 4). Plan policies also envision the development of a variety of non-residential uses in the Transition Policy Area which include, but are not limited to, equestrian centers, golf courses, active recreation uses, retail nurseries, kennels, boarding schools and compatible institutional uses, provided they meet specific criteria that address the nature, scale, and intensity of the use, market area, and design characteristics. These non-residential uses will serve to promote a rural character while serving both rural and suburban populations (Revised General Plan, Chapter 8, Community Design Policies 15 & 16).

The Plan does not specifically identify "utility substation" as a non-residential use within the Transition Policy Area, however, Plan policies generally support the timely delivery of electrical service to households and to businesses as development occurs (Revised General Plan, Energy and Communication Facilities text, Chapter 2). The proposed expansion of the existing substation on the subject site is in keeping with the surrounding land uses which include the existing NOVEC utility substation (.45 acres) to west and the existing VEPCO utility substation (28.53 acres) and high-voltage overhead transmission corridor to the south and southeast. The subject site is surrounded on three sides by existing utility substations and is set back approximately 90 feet from Lightridge Farm Road and approximately 600 feet from the nearest residence, a farm complex located to the north. Plan policies support the grouping of electrical facilities to the extent permitted by the law to mitigate adverse impacts on the surrounding area (Revised General Plan, Chapter 2, Energy and Communication Policy 1). The location of the proposed utility substation expansion in proximity to other electrical facilities is supported by the Plan.

The proposed utility substation is compatible with the surrounding land uses and will provide needed infrastructure for the delivery of electrical services to households and businesses in the area. Staff finds the proposed expansion of the utility substation on the subject site is supported by the land use and energy policies of the Revised General Plan.

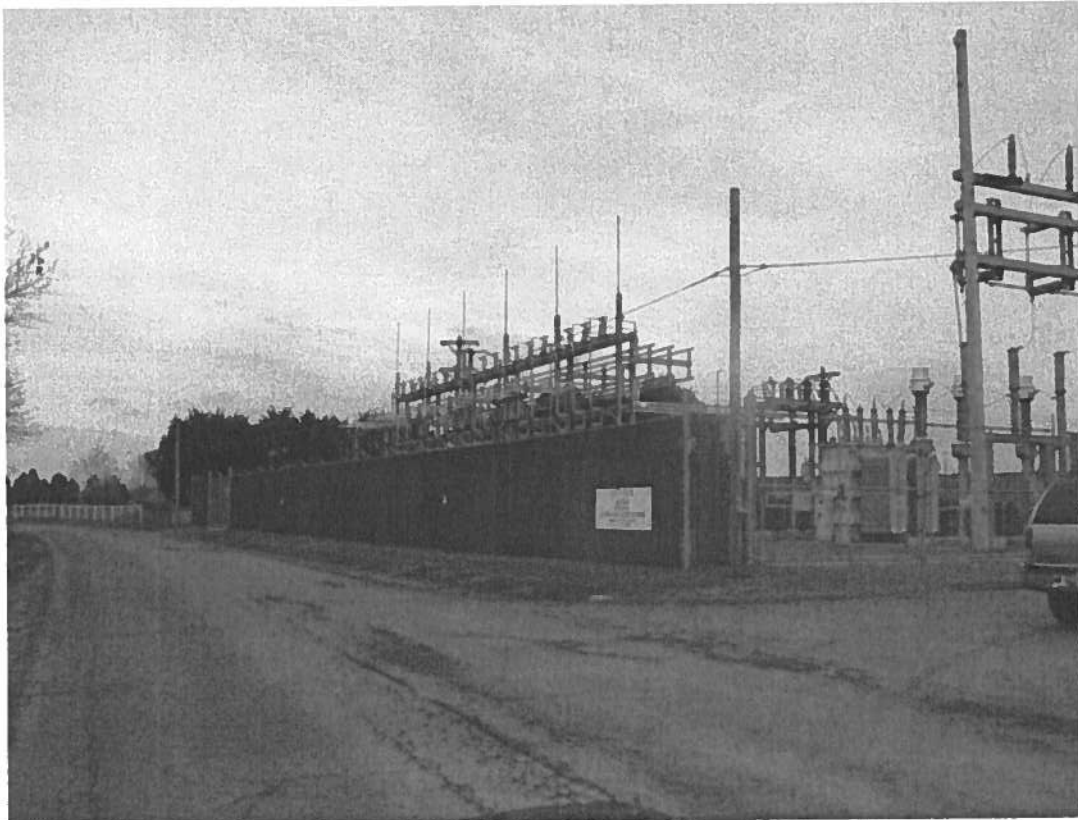
Issues pertaining to site design are discussed below.

B. SITE DESIGN

1. Screening and Buffering

The Revised General Plan calls for non-residential uses to be compatible with desired development patterns and the rural landscape within the Transition Policy Area (Revised General Plan, Chapter 8, Community Design Policies, Policy 16). The proposed expansion of the existing NOVEC substation on the subject site will not significantly alter the visual impact or existing industrial character of the subject site which is adjoined by two existing utility substations and high-voltage overhead transmission corridors. The applicant has proposed a

25-foot wide vegetated Side and Rear Buffer Yards (Type 4) to the east, west, and south to screen the compound. The applicant has requested a modification to the required buffer to allow additional evergreens to replace the canopy trees and to allow an 8' instead of 6' fence. The utilization of evergreens and increase in the height of the proposed fence will provide additional screening and buffering for the facility. The modification of the required buffer yard is being processed through a Minor Special Exception (SPMI 2009-0010); staff supports the applicant's request.



View northeast of existing NOVEC utility substation from Lightridge Farm Road.

The applicant has not proposed a vegetated buffer for the existing compound adjoining Lightridge Farm Road which is also a subject of this application. Based on a review of the submitted drawings and a visit to the subject site while there does not appear to be sufficient area to provide plantings along the road frontage adjoining Lightridge Farm Road, the existing vegetation located on the sides of the compound could be supplemented to provide additional screening to be more in keeping with the requirements of the Zoning Ordinance.

Staff finds the design and visual impact of the proposed expanded equipment compound is in general conformance with Plan policies. Staff recommends that the applicant commit to the long-term maintenance and

care of the proposed fence and vegetated buffer to ensure that the proposed facility is adequately screened. Staff supports the request to modify the required buffer to allow additional evergreens to replace the canopy trees and to allow an 8' instead of 6' fence.

Staff requests that the applicant provide additional information regarding the provision of buffering along the side yards of the existing compound to better screen the facility from the roadway.

2. Lighting

The Revised General Plan promotes lighting standards that will "reduce light pollution such as glare, energy waste, light trespass, and the deterioration of the natural nighttime environment" (Revised General Plan, Lighting and Night Sky Policy 1, Chapter 5).

The applicant has not provided any information regarding lighting.

If any lighting is to be installed on site, staff recommends that it be downward-directed and fully-shielded, provide a glare-free environment, be confined to the site, and have illumination levels that are no greater than necessary for a light's intended purpose. All lighting should be mounted as low as practicable and designed to preclude light trespass onto adjoining properties, glare to passersby, skyglow, and deterioration of the nighttime environment.

C. COMMISSION PERMIT

The County will determine the need for new public facilities and will identify suitable sites based on the Revised General Plan, appropriate area plans, land use, and growth policies (Revised General Plan, Chapter 3, General Public Facilities Policies, Policy 2).

In accordance with the Revised 1993 Zoning Ordinance, a Commission Permit is required when a public utility or public service facility is constructed to determine if the general location, character, and extent of the proposed use is in substantial accord with the Comprehensive Plan. The area surrounding the proposed utility substation expansion already contains two existing utility substations and high-voltage overhead transmission corridor owned and operated by NOVEC and VEPCO. The proposed expansion of the existing substation will not significantly alter the character of the existing site, which is industrial in character and will provide additional infrastructure necessary to serve the existing and future electrical needs for the area.

Staff finds that the general location, character, and extent of the proposed utility substation expansion are in substantial accord with the

Comprehensive Plan. Staff supports the approval of a Commission Permit for the proposed use.

RECOMMENDATION

The use of the subject site and expansion of the existing utility substation is in conformance with the land use and energy policies of the Revised General Plan. However, additional information pertaining to the buffering and screening of the existing compound and proposed lighting for the subject site have been requested to further evaluate the application.

Staff is available to meet with the applicant to discuss these issues.

cc: Julie Pastor, AICP, Planning Director
Cindy Keegan, AICP, Program Manager, Community Planning – via e-mail

COUNTY OF LOUDOUN
DEPARTMENT OF BUILDING AND DEVELOPMENT
MEMORANDUM

DATE: May 25, 2010

TO: Sophia Fisher, Project Manager, Department of Planning

FROM: Theresa M. Stein, Planner, Zoning Administration

CASE NUMBER AND NAME: SPEX 2009-0032, SPMI 2009-0010, CMPT 2009-0011, Arcola Utility Substation (distribution), 3rd submission

TAX/MAP PARCEL NUMBER: 105/////////4/ and 105/////////4A ("Properties")

MCPI: 208-27-0686 (portion) and 251-47-5326

Staff reviewed the third submission materials (response letter dated May 12, 2010 and SPEX plat revised through February 3, 2010). Staff notes that the SPEX plat revision date did not change. In addition to the minor special exception to modify the landscaping requirements in Sections 5-616(D) and 5-621(B), the Applicant confirmed their request to pursue a SPEX per Section 5-1403(C) to eliminate the requirement for a front yard buffer and to modify the plant material for the Type 4 Side/Rear Buffer Yard.

1. The revision date on the SPEX plat should reflect the date of the latest revisions.
2. Add a condition that a lot consolidation application will be approved prior to SPEX implementation.
3. The SPEX plat must reflect that a SPEX is requested to eliminate the front yard buffer and maintain what currently exists.

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COUNTY OF LOUDOUN
DEPARTMENT OF BUILDING AND DEVELOPMENT
MEMORANDUM

DATE: March 18, 2010

TO: Sophia Fisher, Project Manager, Department of Planning

FROM: Theresa M. Stein, Planner, Zoning Administration

CASE NUMBER AND NAME: SPEX 2009-0032, SPMI 2009-0010, CMPT 2009-0011, Arcola Utility Substation (distribution), 2nd submission

TAX/MAP PARCEL NUMBER: 105/////////4/ and 105/////////4A ("Properties")

MCPI: 208-27-0686 (portion) and 251-47-5326

Staff has reviewed the second submission materials, updated through February 3, 2010. In addition to the minor special exception to modify the landscaping requirements in Sections 5-616(D) and 5-621(B), the Applicant has requested, pursuant to Section 5-1403(C), that the special exception application include a modification to the requirements of 5-1400 to eliminate the requirement for a front yard buffer adjacent to Lightridge Farm Road and to modify the plant material for the Type 4 Buffer Yard. Having reviewed the request for additional modifications, and the Applicant's response and revised SPEX plat, staff has the following comments:

1. **Original comment:** *Per 2-1503(B), no building shall be located within 25' of any property line or 35' from any other road right-of-way or private access easement. A required yard is located along the perimeter of the lot and the dimensions are as established by the district regulation. As these are two separate lots, the required yards are required along the perimeter of both lots. Show the minimum required yards on parcel 4A and the required 25' yard between both parcels to demonstrate the building area limitations. The substation structures are not subject to the minimum building yard as they do not meet the definition of a building. Note that there is no minimum yards along the northern boundary of the special exception area as it does not constitute a property line, therefore, remove the "25' building setback" shown.* There currently exists 2 separate parcels, and as such, yards are applicable where there are property lines. There is no requirement to combine the parcels and no assurance that the 2 parcels will be consolidated. The requirement to provide a yard and a buffer yard between the 2 properties does not go away until a boundary line adjustment has been filed. Further, until a lot consolidation is approved, this application is not an expansion of an existing use because the use does not currently exist on a parcel. In order to treat the 2 parcels as one, the applicant must agree to a condition that the parcels will be combined prior to implementation of the SPEX use. Staff recommends that sheet 1 of 5 include a note that the parcels will be consolidated prior to the implementation of the SPEX use.

2. Original comment: *Parcel 4A is included in this application as an expanded SPEX use; therefore, all requirements of the Ordinance must be fulfilled unless modified. A Type 4 front Buffer Yard is required adjacent to Lightridge Farm Road. If the required Type 4 front buffer cannot be provided, the applicant must seek a modification (see below).* Staff notes the addition to the SPEX to modify the landscaping provisions to eliminate the requirement to provide a front yard buffer and to modify the plantings for a Type 4 side/year buffer yard.
3. Original comment: *Add a note to sheet 1 of the SPEX plat stating that, except for the requested landscaping modification, all other landscaping will be provided in accordance with the Ordinance.* Revise Note 8 on sheet 1 to eliminate the “conceptual in nature” sentence and revise the note to read “A modification to revise the plant material of the Type 4 side/year buffer yard, as proposed on sheet 4 of 5, is requested with this SPEX application, in addition to a request to eliminate the requirement for a front yard buffer along Lightridge Farm Road. Unless otherwise modified, landscaping will be provided in accordance with the Zoning Ordinance”.
4. Original comment: *Show the access point to the substation to demonstrate that it is being accessed by a private access easement. (§5-621(D)).* Provide the deed book and page of the private access easement to verify. A recorded easement is necessary until such time as a parcel consolidation is approved and recorded.
5. Revise Note 28 and 29 on sheet 1 to reference the Loudoun County GIS “Map” not “Mapper”.
6. Correct the Ordinance citation in paragraph F, page 2, of the Extended Project Justification. Section 5-1603 does not exist. The applicant seeks to modify the landscaping requirements pursuant to Section 5-1403(D). The required plant material appears in Section 5-1414(B) and the requirement to provide the buffer yard along the perimeter of the lot or parcel is located at 5-1407(A).

COUNTY OF LOUDOUN
DEPARTMENT OF BUILDING AND DEVELOPMENT
MEMORANDUM

DATE: December 15, 2009

TO: Sophia Fisher, Project Manager, Department of Planning

FROM: Theresa M. Stein, Planner, Zoning Administration

CASE NUMBER AND NAME: SPEX 2009-0032, SPMI 2009-0010, CMPT 2009-0011, Arcola Utility Substation (distribution)

TAX/MAP PARCEL NUMBER: 105/////////4/ and 105/////////4A ("Properties")

MCPI: 208-27-0686 (portion) and 251-47-5326

The special exception is to allow a utility substation, distribution, on a 3.88 acre portion of a 389.5 property and the entirety of another parcel, which already has a utility substation on it. The Properties are zoned Transitional Residential-3 (Upper Broad Run Upper Foley and Lower Foley) (TR-3UBF and TR-3LF), governed under the Revised 1993 Loudoun County Zoning Ordinance ("Ordinance"). The Properties are within the major and minor Floodplain Overlay District, and contain moderate and very steep slope; however, no steep slope or floodplain are within the area of the special exception. A utility substation, distribution, is a special exception in the zoning district and is subject to the additional regulations found in Sections 5-616 and 5-621 of the Ordinance. The applicant also seeks to modify Section 5-616(D) and 5-621(B) to alter the required planting and fence height required with a Type 4 buffer yard. Staff reviewed the Extended Project Justification (Statement of Justification or "SOJ") and the Special Exception Plat, dated November 20, 2009, and has the following comments:

I. CRITICAL ISSUES: none.

II. CONFORMANCE WITH TR-3 ZONING REGULATIONS (§2-1500):

1. Per 2-1503(B), no building shall be located within 25' of any property line or 35' from any other road right-of-way or private access easement. A required yard is located along the perimeter of the lot and the dimensions are as established by the district regulation. As these are two separate lots, the required yards are required along the perimeter of both lots. Show the minimum required yards on parcel 4A and the required 25' yard between both parcels to demonstrate the building area limitations. The substation structures are not subject to the minimum building yard as they do not meet the definition of a building. Note that there is no minimum yards along the northern boundary of the special exception area as it does not constitute a property line, therefore, remove the "25' building setback" shown.

2. Clearly show the property line of both parcels and use a different marking to show the limits of the SPEX use as the marking used is commonly the same for property line.
3. Correct the term "25' building setback" with "25' building yard" as a yard and a setback are not the same and are regulated by different requirements (§2-1503(B)).
4. Show the location of the private access easement that accesses the Property to demonstrate that no building encroaches into the 35' minimum required yard. (§2-1503(B)).

III. CONFORMANCE WITH SPECIFIC USE REGULATIONS (§5-600):

5. Provisions within Section 5-600 may be modified in accordance with Section 6-1300 upon a finding that the modification achieves an innovative design, improves upon the existing regulation, preserves the County's historic or archeological heritage, or otherwise exceeds the public purpose of the existing regulation. The applicant has provided no information with which to evaluate the request for a modification. Without such information, the landscape modification request cannot be evaluated. Provide a justification for all modifications.
6. A utility distribution substation shall have a minimum Type 4 buffer yard around the perimeter of the site. The applicant has requested a modification to the required buffer to allow additional evergreens to replace the canopy and to allow an 8' instead of 6' fence. The fence shall provide 95% opacity unless otherwise modified. The applicant has not proposed an alternative planting schedule, although one needs to be approved as part of this applicant. Staff recommends that instead of 2 canopy trees per 100 linear feet for a side yard, 2 evergreens per 100 linear feet be planted. All other landscaping values will remain the same. (§5-618(D)).
7. Parcel 4A is included in this application as an expanded SPEX use; therefore, all requirements of the Ordinance must be fulfilled unless modified. A Type 4 front Buffer Yard is required adjacent to Lightridge Farm Road. If the required Type 4 front buffer cannot be provided, the applicant must seek a modification (see below)
8. Add a note to sheet 1 of the SPEX plat stating that, except for the requested landscaping modification, all other landscaping will be provided in accordance with the Ordinance.
9. Revise the note on the bottom left side of all SPEX plat sheets that Section 5-621(B), in addition to 5-618(D), requires a Type 4 Buffer Yard. A modification to 5-621(B) must also be requested.
10. Show the access point to the substation to demonstrate that it is being accessed by a private access easement. (§5-621(D)).

V. CONFORMANCE WITH BUFFERING AND SCREENING REGULATIONS (§5-1400):

11. Buffer yards shall be located along the perimeter of a lot. Parcel 4 is required to have a Type 4 Buffer Yard along the northern parcel line, not along the limits of the special exception. If an alternate landscaping area is proposed, a modification must be requested as part of this special exception application. Revise the location of the northern buffer yard or request an additional modification. (§§5-1403(C) and 5-1407(A)).
12. A Type 4 front Buffer Yard is required along Lightridge Farm Road. If the required landscaping cannot be provided, the applicant may seek a modification or propose an alternative buffer to be part of this SPEX application pursuant to 5-1403(C).

VI. CONFORMANCE WITH SPECIAL EXCEPTION REGULATIONS (§6-1300):

13. An applicant shall address all of the Issues for Consideration found in Section 6-1310 unless not applicable. Each issue should be addressed individually. The applicant has only provided a general statement as to the Issues for Consideration and stated what does not apply. Address each issue in the Statement of Justification (Extended Project Justification).

VII OTHER:

14. Revise Note 2 on sheet 1 of the SPEX plat to read "The property is zoned TR3 (-LF, -UBF, and LBR), subject to the Revised 1993 Loudoun County Zoning Ordinance. The area subject to this SPEX is zoned TR-3 (-LF and -UBF).
15. Revise note 14 as FEMA insurance rate maps do not show limits of "any floodplain overlay district". The Floodplain Overlay District is contained within the Ordinance.
16. Revise Note 27 to read "Loudoun County Map" not "Mapper".
17. Add a note that there are moderate and very steep slopes on the Property, but not within the area subject to the special exception.

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DEPARTMENT OF BUILDING AND DEVELOPMENT

COUNTY OF LOUDOUN

MEMORANDUM

DATE: April 15, 2010

TO: Sophia Fisher, Department of Planning

FROM: William Marsh, Environmental Review Team Leader

CC: Theresa Stein, Building and Development
Pat Giglio, Department of Planning

SUBJECT: SPEX-2009-0032, SPMI-2009-0010, CMPT-2009-0011, Arcola Substation

The Environmental Review Team (ERT) reviewed the subject application on December 14, 2009, with a December 15 site visit. Our comments are as follows:

1. Staff requests more information regarding the berm that is proposed to intercept storm runoff that could include mineral oil or other hydrocarbons, including but not limited to a typical cross section and description of berm material. Staff also recommends a condition of approval that details how mineral oil and other hydrocarbon spills and leaks will be contained and treated.
2. Staff requests verification about the presence of two-way communication infrastructure that will be incorporated into the proposed substation. According to NOVEC's website at http://www.novec.com/About_NOVEC/Technology.cfm, 18 of the 52 existing substations in the service territory were to include fiber optic connectivity between substations and NOVEC offices as of 2006. Two-way connectivity helps improve the "timely delivery of these services to businesses and households as development occurs," described as a County goal on page 2-23 of the Revised General Plan.

Please contact me if you need additional information or have questions.

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DEPARTMENT OF BUILDING AND DEVELOPMENT

COUNTY OF LOUDOUN

MEMORANDUM

DATE: December 18, 2009

TO: Sophia Fisher, Department of Planning

FROM: William Marsh, Environmental Review Team Leader

CC: Theresa Stein, Building and Development
Pat Giglio, Department of Planning

SUBJECT: SPEX-2009-0032, SPMI-2009-0010, CMPT-2009-0011, Arcola Substation

The Environmental Review Team (ERT) reviewed the subject application on December 14, 2009, with a December 15 site visit. Our comments are as follows:

1. The special exception plan depicts a possible underground stormwater management area located downhill of the proposed substation pad. Staff does not believe that an underground is needed, because there is enough space on site for a pond or other stormwater feature. Staff recommends that a facility be designed with a high nutrient removal capability, including but not limited to an extended enhanced detention pond, retention (wet) pond, or an array of bioretention basins (with underdrains if needed.) Runoff leaving this site will enter Bull Run, which drains to the Occoquan Reservoir, a drinking water source. Zoning Ordinance Section 6-1310(H) includes the application's impacts on water quality as an issue for consideration with a special exception.
2. Chapter 5 of the Facilities Standards Manual (FSM) regulates stormwater management for "hotspot" uses, where certain activities could generate runoff of hydrocarbons, trace metals, or toxicants. Staff inquires into the presence of liquids with hydrocarbons or other potentially toxic materials that are used on site, including but not limited to mineral oil. Depending on materials being stored, staff may require verification of secondary containment where these products are stored or handled, consistent with FSM Section 5.320.E.4.b.
3. Northern Virginia Electric Cooperative has received grant money from the Federal stimulus to install "smart grid" capacity into the distribution network. Smart grid technology is incorporated to improve demand response and stabilize spikes in power demand and supply, among other goals. These priorities help achieve the "timely delivery of these services to businesses and households as development occurs," described as a County goal on page 2-23 of the Revised General Plan. Accordingly, staff encourages the applicant to incorporate smart

grid technology with this application, and to educate current and future county customers about the efficiency gains available through this design.

Please contact me if you need additional information or have questions.

County of Loudoun
Office of Transportation Services
MEMORANDUM

DATE: April 19, 2010

TO: Sophia Fisher, Project Manager,
Department of Planning

FROM: Marc Lewis-DeGrace, Transportation Planner *MLDG*

SUBJECT: **SPEX 2009-0032, SPMI 2009-0010 & CMPT 2009-0011,**
Arcola Substation
Second Referral

Background

This referral updates the status of issues identified in the first Office of Transportation Services (OTS) referral on these applications (dated January 19, 2010). These Special Exception (SPEX), Minor Special Exception (SPMI) and Commission Permit (CMPT) applications propose to expand an existing utility substation (addition of six (6) new distribution circuits to maintain the capacity of the substation) and to allow a buffer modification. The site is zoned Transitional Residential (TR3LF and TR3UBF) and is located on the east side of Lightridge Farm Road (Route 705) approximately 2.15 miles south of Braddock Road (Route 620/Route 705). Access is proposed from Lightridge Farm Road.

This update is based on review of materials received from the Department of Planning on March 15, 2010, namely (1) a letter responding to first referral comments, dated March 10, 2010, and (2) a special exception plat dated November 20, 2009 and revised through February 3, 2010, both prepared by Dewberry & Davis LLC.

Status of Transportation Issues/Comments

Staff comments from the first OTS referral as well as the Applicant's responses (quoted directly from its March 10, 2010 response letter) and current issue status, are provided below.

1. **Initial Staff Comment (1st Referral):** The Applicant should indicate whether there will be any changes/modifications to the existing site entrance, and confirm that the entrance meets/will meet applicable VDOT entrance requirements.

Applicant's Response (March 10, 2010): There will not be any changes or modifications to the existing and approved by VDOT entrances. Both entrances will remain exactly as they operate for the existing facility.

Issue Status: **Issue resolved.**

2. **Initial Staff Comment (1st Referral):** The Applicant should provide a cross-section of existing Lightridge Farm Road in the vicinity of the site, showing the road's location within the existing ROW. The plat should be revised to clearly depict the location of the existing roadway (including centerline) and ROW boundary along the frontage of the subject site. Depiction of the existing ROW boundary will aid in determining whether any additional ROW for the ultimate location of Northstar Boulevard can be provided along the frontage of the site given the existing substation's close proximity to the existing roadway.

Applicant's Response (March 10, 2010): The additional sheet 5 has been incorporated to show the existing road centerline and right of way. A detail also showing the centerline, edge of pavements right of way and existing fence of substation has also been shown in this same sheet 5. Please note that the existing fence is about 6" from the right of way. This substation was built in the 1960s where no setbacks were required. The fence is 15' away from the existing electrical structures based on safety regulations and vehicle access for maintenance. There is also an existing control building adjacent to the fence. With all of these described items it is impossible for any additional right of way dedication in this area. Further, we submit that requiring a dedication for the ultimate location of Northstar Boulevard would be a violation of Virginia and Federal law because the need for the dedication would in no way be roughly proportional to the 1-vehicle trip per month impact of the proposed substation addition.

Issue Status: **Issue resolved.** OTS did not request additional ROW from the Applicant, but rather a cross section depicting the location of existing Lightridge Farm Road within the existing ROW, as it was not clear from the Applicant's Special Exception plat (dated November 20, 2009) where the ROW boundary was located relative to the existing substation. The additional plat sheet and cross section (revised February 3, 2010) provided by the Applicant clearly depict the existing conditions and are appreciated.

The most recently submitted Preliminary Plat for the adjacent Greenfields subdivision (SBPL 2007-0025) (sealed June 30, 2009) depicts the proposed ultimate alignment of future Northstar Boulevard in this vicinity. The Applicant for the Greenfields subdivision is proposing to locate the entire

ROW for future Northstar Boulevard on its property to the west of the subject substation site (see *Attachment 1*) and therefore additional ROW is not needed along existing Lightridge Farm Road.

3. Initial Staff Comment (1st Referral): According to the 2001 Revised CTP, the planned alignment of Dulles South Boulevard traverses the larger 379-acre property (MCPI # 208-27-0686) owned by South Auburn Limited Partnership, though completely outside of the area subject to these applications. Consideration must be given to the alignment of this planned roadway in future development of the larger parcel.

Applicant's Response (March 10, 2010): same as above

Issue Status: Issue resolved. No action by the Applicant was necessary for the resolution of this comment. OTS intended this comment to inform the Applicant of a future planned CTP roadway on other portions of the larger parcel.

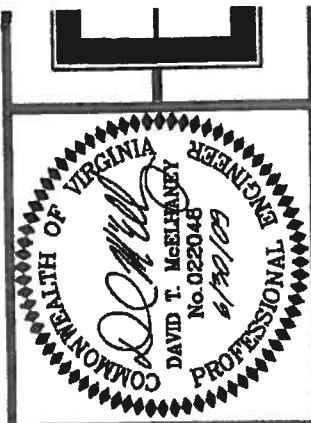
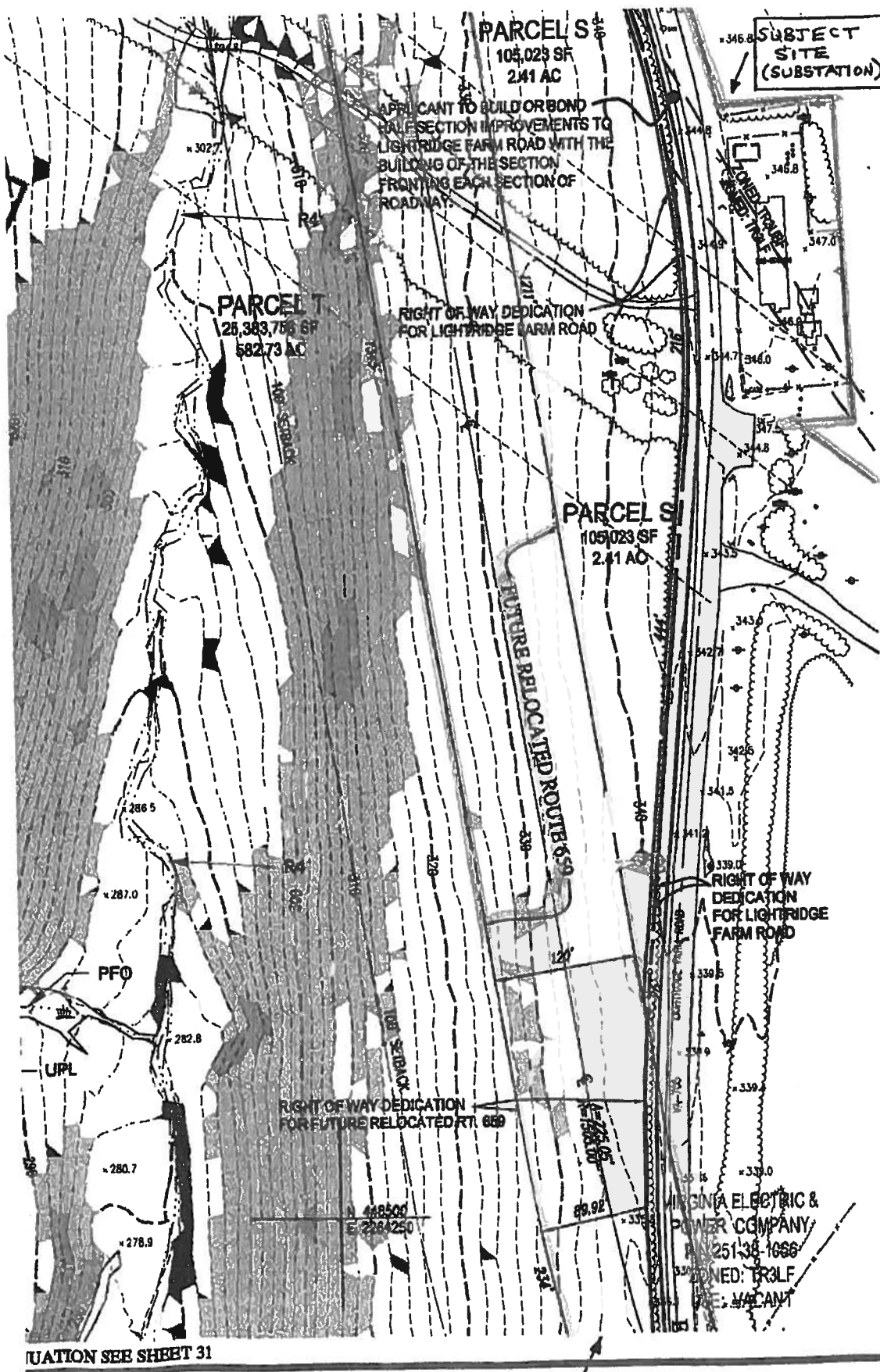
Conclusion

OTS has no objection to the approval of these applications.

ATTACHMENT

1. Portion of Greenfields SBPL Plat (SBPL 2007-0025) depicting ultimate location of Northstar Boulevard (Route 659 Relocated)

cc: Andrew Beacher, Assistant Director, OTS
Lou Mosurak, Senior Coordinator, OTS



PRELIMINARY PLAT

GREENFIELDS PRELIMINARY PLAT

DULLES ELECTION DISTRICT

LOUDOUN COUNTY, VIRGINIA

SCALE: 1"=100'

C.L. 2'

DATE: OCTOBER 2005

SHEET
29
OF
47

FILE No.
PREL-1585

ALIGNMENT PROPOSED WITH GREENFIELDS SBPL


County of Loudoun

Office of Transportation Services – MSC # 69

MEMORANDUM

DATE: January 19, 2010

TO: Sophia Fisher, Project Manager, Department of Planning

FROM: Norah M. Ocel, E.I.T., Senior Transportation Planner 

SUBJECT: SPEX 2009-0032, SPMI 2009-0010 & CMPT 2009-0011,
Arcola Substation
FIRST REFERRAL

Background

The subject special exception (SPEX) and commission permit (CMPT) request approval to expand an existing utility substation (addition of six (6) new distribution circuits to maintain the capacity of the substation), and the subject minor special exception (SPMI) application requests approval to allow a buffer modification.

The approximately 3.79-acre site is zoned Transitional Residential (TR3LF and TR3UBF) and is located on the east side of Lightridge Farm Road (Route 705), approximately 2.15 miles south of Braddock Road (Route 620/Route 705). A vicinity map is provided as *Attachment 1*. Access is proposed from Lightridge Farm Road.

In its consideration of these applications, the Office of Transportation Services (OTS) reviewed materials received from the Department of Planning on December 1, 2009, including (1) a statement of justification prepared by the Applicant, received on November 30, 2009 by the Planning Department; (2) a traffic statement prepared by Dewberry & Davis, LLC, dated November 19, 2009; and (3) a commission permit/special exception/minor special exception plat (plan set) prepared by Dewberry & Davis, LLC, dated November 20, 2009.

Existing, Planned and Programmed Transportation Facilities

According to the Revised General Plan, the site is located within the Transition Policy Area. Major roadways that serve or are planned to serve the site are described below. OTS review of existing and planned transportation facilities is based on the 2001 Revised Countywide Transportation Plan (2001 Revised CTP) and the 2003 Bicycle & Pedestrian Mobility Master Plan (2003 Bike & Ped Plan).

Existing Lightridge Farm Road (Route 705) is a local secondary road. In the vicinity of the site, it consists of two paved travel lanes (each 9-10 feet width) within a 30-foot right-of-way (ROW). North of the site, the roadway is unpaved. Lightridge Farm Road connects Braddock Road (Route 620/705) to the north with Sanders Lane (Route 705) in Prince William County to the south.

According to the 2008 VDOT Daily Traffic Volume Estimates Report, the segment of Lightridge Farm Road between Braddock Road and the Prince William County line was estimated to carry an average daily traffic (AADT) volume of 285 vehicles.

There are currently no bicycle and pedestrian facilities along Lightridge Farm Road.

Future Northstar Boulevard (Route 659 Relocated) (segment between Braddock Road and the Prince William County line) is ultimately planned by the 2001 Revised CTP (Page A1-30) to be a six-lane divided (U6M) controlled access minor arterial within a 120-foot ROW. Left- and right-turn lanes are required at all at-grade intersections, with a desirable median crossover spacing of 1,100 feet. Future Northstar Boulevard would follow the same alignment as existing Lightridge Farm Road in the vicinity of the site, and would connect with the planned Route 234 Bypass in Prince William County.

According to the 2003 Bike & Ped Plan, Northstar Boulevard is proposed as a "baseline connecting roadway" along which bicycle and pedestrian facilities are envisioned.

Future Dulles South Boulevard (segment between Lightridge Farm Road/Future Northstar Boulevard and Gum Spring Road (Existing Route 659)) is planned by the 2001 Revised CTP (Page A1-49) to be a four-lane divided (R4M) controlled access minor collector within a 120-foot ROW. Left- and right-turn lanes are required at all at-grade intersections, with a desirable median crossover spacing of 700 feet. (Dulles South Boulevard is referred to as "Foley Branch Boulevard" in the current draft of the Countywide Transportation Plan).

According to the 2003 Bike & Ped Plan, Dulles South Boulevard is proposed as a "baseline connecting roadway" along which bicycle and pedestrian facilities are envisioned.

Trip Generation

According to the Applicant's submitted traffic statement, the existing substation generates one (1) vehicle trip per month and there will be no additional trips generated as a result of the expansion of the facility.

Transportation Comments

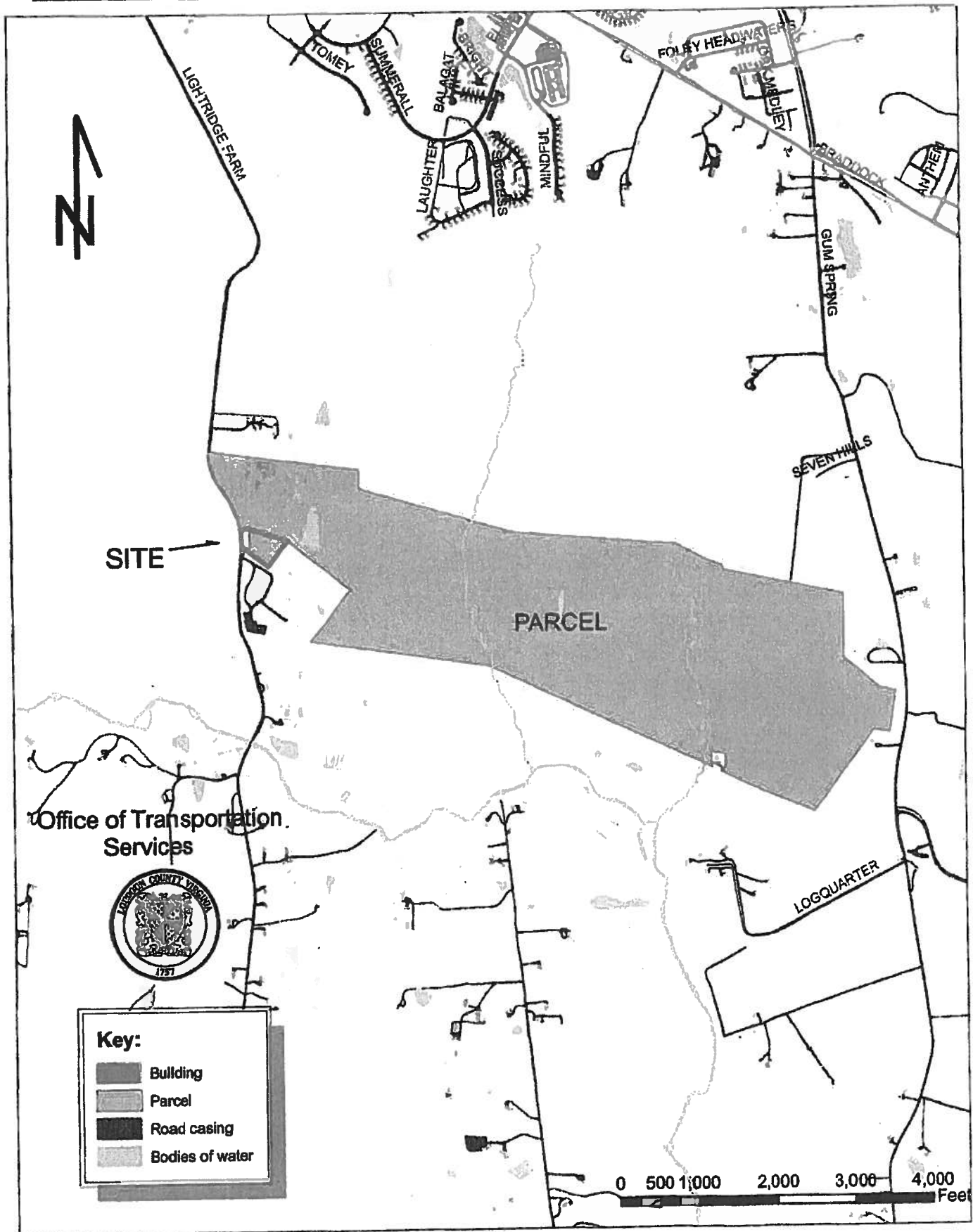
1. The Applicant should indicate whether there will be any changes/modifications to the existing site entrance, and confirm that the entrance meets/will meet applicable VDOT entrance requirements.
2. The Applicant should provide a cross-section of existing Lightridge Farm Road in the vicinity of the site, showing the road's location within the existing ROW. The plat should be revised to clearly depict the location of the existing roadway (including centerline) and ROW boundary along the frontage of the subject site. Depiction of the existing ROW boundary will aid in determining whether any additional ROW for the ultimate location of Northstar Boulevard can be provided along the frontage of the site given the existing substation's close proximity to the existing roadway.
3. According to the 2001 Revised CTP, the planned alignment of Dulles South Boulevard traverses the larger 379-acre property (MCPI # 208-27-0686) owned by South Auburn Limited Partnership, though completely outside of the area subject to these applications. Consideration must be given to the alignment of this planned roadway in future development of the larger parcel.

CONCLUSION / RECOMMENDATION

OTS will provide a recommendation once the applicant addresses all the comments contained in this referral. Based on the Applicant's responses, OTS may have additional comments on subsequent submissions of this application. OTS staff is available to meet with the applicant regarding this proposal.

CC. Andrew Beacher, Assistant Director, OTS
Lou Mosurak, Senior Coordinator, OTS
Charles Acker, Transportation Operations Engineer, OTS

ARCOLA SUBSTATION (SPEX 2009-0032, SPMI 2009-0010, and CMPT 2009-0011)



Base Map data obtained from LMIS records (December 2009)

Attachment 1.

December 17, 2009

Ms. Sophia Fisher
County of Loudoun
Department of Planning MSC#62
1 Harrison Street, S.E.
P.O. Box 7000
Leesburg, Virginia 20177-7000

Re: Arcola NOVEC Substation
Loudoun County Application Numbers SPEX 2009-0032, SPMI 2009-0010, and
CMPT 2009-0011

Dear Ms. Fisher:

We have reviewed the above application as requested in your November 30, 2009 transmittal (received December 7, 2009). We have no objection to approval of this application.

If you have any questions, please call me at (703) 383-2424.

Sincerely,

Thomas B. VanPoole, P.E.
Senior Transportation Engineer

ATTACHMENT 1e

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L. Preston Bryant, Jr.
Secretary of Natural Resources



Joseph H. Maroon
Director

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

217 Governor Street
Richmond, Virginia 23219-2010
(804) 786-7951 FAX (804) 371-2674

December 15, 2009

Sophia Fisher
County of Loudoun
1 Harrison Street, S.E.
Leesburg, VA 20175

Re: SPEX 2009-0032, SPMI 2009-0010, CMPT 2009-0011, Arcola Substation

Dear Ms. Fisher:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Biotics documents the presence of natural heritage resources in the project area. However, due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources.

Our files do not indicate the presence of any State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

The Virginia Department of Game and Inland Fisheries maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Shirl Dressler at (804) 367-6913.

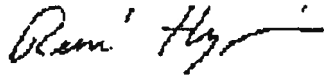
Should you have any questions or concerns, feel free to contact me at 804-371-2708. Thank you for the opportunity to comment on this project.

*State Parks • Soil and
Chesapeake Bay Local A.*

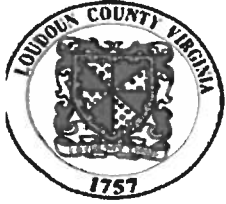
ATTACHMENT 1f

*• Recreation Planning
• Land Conservation*

Sincerely,

A handwritten signature in black ink, appearing to read "S. Rene' Hypes". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

S. Rene' Hypes
Project Review Coordinator



LOUDOUN COUNTY, VIRGINIA
Department of Fire, Rescue and Emergency Management

803 Sycolin Road, Suite 104 Leesburg, VA 20175
Phone 703-777-0333 Fax 703-771-5359



Memorandum

To: Sophia Fisher, Project Manager
From: Maria Figueroa Taylor, Fire-Rescue Planner
Date: March 23, 2010
Subject: Arcola Substation, second referral
SPEX 2008-0032, SPMI 2009-0010 & CMPT 2009-0011

Thank you for the opportunity to review the applicant's response to referral comments dated January 11, 2010 regarding the above captioned application. The Fire and Rescue Planning Staff, in agreement with the Fire Marshal's Office, has no further comments.

If you have any questions or need additional information, please contact me at 703-777-0333.

c: Project file

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LOUDOUN COUNTY, VIRGINIA
Department of Fire, Rescue and Emergency Management

803 Sycolin Road, Suite 104 Leesburg, VA 20175
Phone 703-777-0333 Fax 703-771-5359



Memorandum

To: Sophia Fisher, Project Manager
From: Maria Figueroa Taylor, Fire-Rescue Planner
Date: January 11, 2010
Subject: Arcola Substation
SPEX 2008-0032, SPMI 2009-0010 & CMPT 2009-0011

Thank you for the opportunity to review the above captioned application. The Fire and Rescue Planning Staff, in agreement with the Fire Marshal's Office, has no objection to the application as presented. Staff appreciates the applicant commitment to fire safety and their offer to establish the automatic fire-containment relays and the protocol as a condition of approval. It would be helpful to receive the final version of the protocol in writing prior to the facility addition being operational so it could be disseminated to first responders.

The Fire-Rescue GIS and Mapping coordinator offered the following information regarding estimated response times:

| | |
|-------------------|---------------------------------------|
| Project name | Arcola VFRC, Station 9 Travel Time |
| Arcola Substation | 11 minutes, 27 seconds |

The Travel Times for each project were calculated using ArcGIS and Network Analyst extension to calculate the travel time in minutes. To get the total response time another two minutes were added to account for dispatching and turnout. This assumes that the station is staffed at the time of the call. If the station is unoccupied another one to three minutes should be added.

| | |
|-------------------|--|
| Project name | Arcola VFRC, Station 9 Response Times |
| Arcola Substation | 13 minutes, 27 seconds |

If you have any questions or need additional information, please contact me at 703-777-0333.

c: Project file

Teamwork * Integrity * Professionalism * Service

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10 December 2009

MEMORANDUM TO: Sophia Fisher, Project Manager
Department of Planning, **MSC 62**

FROM: Matthew D. Tolley
Sr. Env. Health Specialist
Division of Environmental Health, **MSC 68**

SUBJECT: **SPEX 2009-0032, SPMI 2009-0010 and CMPT
2009-0011; Arcola Substation
LCTM: 105/4, et al (PIN 208-27-0686)**

The Health Department recommends approval of this application. The proposed development will require the applicant later to apply for evaluations by the Health Department of the existing septic systems and wells serving the existing houses before a waiver or any other kind of subdivision can be approved. The plat reviewed was prepared by Dewberry and was dated 20 November 2009.

Attachments Yes ____ No X

If further information or clarification on the above project is required, please contact Matt Tolley at 771-5248.

MDT/JEL/mt
c:subdvgd.ref

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I, Gifford R. Hampshire, do hereby state that I am an

 Applicant

X Applicant's Authorized Agent listed in Section C.1. below

in Application Number(s): CMPT 2009-0011, SPEX 2009-0032, SPMI 2009- 0010

and that to the best of my knowledge and belief, the following information is true:

C. DISCLOSURES: REAL PARTIES IN INTEREST AND LAND USE PROCEEDINGS

1. REAL PARTIES IN INTEREST

The following constitutes a listing of the names and addresses of all **APPLICANTS, TITLE OWNERS, CONTRACT PURCHASERS** and **LESSEES** of the land described in the application* and if any of the forgoing is a **TRUSTEE**** each **BENEFICIARY** of such trust, and all **ATTORNEYS**, and **REAL ESTATE BROKERS**, and all AGENTS of any of the foregoing.

All relationships to the persons or entities listed above in **BOLD** print must be disclosed. Multiple relationships may be listed together (ex. Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner, etc.) For a multiple parcel application, list the Parcel Identification Number (PIN) of the parcel(s) for each owner(s).

| PIN | NAME (First, M.I., Last) | ADDRESS (Street, City, State, Zip Code) | RELATIONSHIP (Listed in bold above) |
|-----------------|-------------------------------------|---|--|
| 208-27-0686-000 | South Auburn Limited Partnership | Meredith K. Light, General Partner Rumsey Light, Jr., General Partner 25992 Lightridge Farm Road Aldie, Virginia 20105 | Owner |
| 208-27-0686-000 | Lawrence M. Schonberger | Sevila, Saunders, Huddleston & White, P.C. 30 King Street Leesburg, Virginia 20176 | Attorney |
| 251-47-5326-000 | NOVEC | 5399 Wellington Branch Drive Gainesville, Virginia 20155-1616 | Owner/Applicant |
| | Gifford R. Hampshire | Blankingship & Keith, P.C. 9300 W. Courthouse Road Suite 201 Manassas, Virginia 20110 | Attorney |
| | Ignacio Licht | Dewberry & Davis 13575 Heathcote Blvd., Suite 130 Gainesville, Virginia 20155 | Engineer |

* In the case of a condominium, the title owner, contract purchaser, or lessee of 10% or more of the units in the condominium.

**** In the case of a TRUSTEE, list Name of Trustee, name of Trust, if applicable, and name of each beneficiary.**

Check if applicable:

☐ **There are additional Real Parties in Interest. *See Attachment to Paragraph C-1.***

2. CORPORATION INFORMATION (see also Instructions, Paragraph B.3 above)

The following constitutes a listing of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 100 or fewer shareholders, a listing of all of the shareholders, and if such corporation is an owner of the subject land, all **OFFICERS** and **DIRECTORS** of such corporation. (Include sole proprietorships, limited liability companies and real estate investment trusts).

Name and Address of Corporation: (complete name, street address, city, state, zip code)

NOVEC, 10323 Lomond Drive, Manassas, Virginia 20108-0875

Description of Corporation:

There are 100 or fewer shareholders and all shareholders are listed below.

There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.

☒ There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

There are more than 500 shareholders and stock is traded on a national or local stock exchange.

Names of Shareholders:

| SHAREHOLDER NAME (First, M.I., Last) | SHAREHOLDER NAME (First, M.I., Last) |
|---|---|
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Names of Officers and Directors:

| NAME (First, M.I., Last) | Title (e.g. President, Treasurer) |
|-----------------------------|--|
| Stan Feuerberg | President/CEO |
| Wade C. House | Chairman |
| Jim Moxley | Sr. Vice President/Administration |
| Michael Dalley | Vice President, Business Development |
| Patrick Toulme | Vice President, Corporate Counsel |
| Marlane Parsons | Vice President, Organizational Development |
| Wilbur Rollins | Senior Vice President |
| Allen Barbee | Vice President, Electric System Operations |

| <i>NAME</i> <i>(First, M.I., Last)</i> | <i>Title</i> <i>(e.g. President, Treasurer)</i> |
|---|--|
| Robert Bisson | Vice President, Electric System Development |
| Mike Curtis | Vice President, Public Relations |
| Wade C. House | Chairman |
| J. Manley Garber | Vice Chairman |
| Michael E. Ragen | Secretary |
| Walter Grove | Treasurer |
| Cynthia Gilbride | Director |
| William Zilliott | Director |
| Harry Harris | Director |
| James Chesley | Director |
| Ann Wheeler | Director |

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

2. CORPORATION INFORMATION (see also Instructions, Paragraph B.3 above)

The following constitutes a listing of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 100 or fewer shareholders, a listing of all of the shareholders, and if such corporation is an owner of the subject land, all **OFFICERS** and **DIRECTORS** of such corporation. (Include sole proprietorships, limited liability companies and real estate investment trusts).

Name and Address of Corporation: (complete name, street address, city, state, zip code)

Blankingship & Keith, P.C., 4020 University Drive, Suite 300, Fairfax, VA 22030

Description of Corporation:

X *There are 100 or fewer shareholders and all shareholders are listed below.*

 There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.

 There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

 There are more than 500 shareholders and stock is traded on a national or local stock exchange.

Names of Shareholders:

| SHAREHOLDER NAME <i>(First, M.I., Last)</i> | SHAREHOLDER NAME <i>(First, M.I., Last)</i> |
|---|---|
| A. Hugo Blankingship, Jr. | Elizabeth Chichester Morrogh |
| John A.C. Keith | Robert J. Stoney |
| William H. Casterline, Jr. | Wm. Quinton Robinson |
| Sarah Elizabeth Hall | John F. Cafferky |
| Paul B. Terpak | William B. Porter |
| Peter S. Everett | Gifford R. Hampshire |
| David Rust Clarke | William L. Carey |
| David J. Gogal | Mary McGowan |
| Mark A. Towery | |

Names of Officers and Directors:

| NAME <i>(First, M.I., Last)</i> | Title <i>(e.g. President, Treasurer)</i> |
|---|--|
| John F. Cafferky | President |
| John A.C. Keith | Secretary/Treasurer |
| A. Hugo Blankingship, Jr. | Vice President |
| William H. Casterline, Jr. | Vice President |
| Sarah Elizabeth Hall | Vice President |
| Paul B. Terpak | Vice President |
| Peter S. Everett | Vice President |

| <i>NAME</i> <i>(First, M.I., Last)</i> | <i>Title</i> <i>(e.g. President, Treasurer)</i> |
|---|--|
| David Rust Clarke | Vice President |
| David J. Gogal | Vice President |
| Mark A. Towery | Vice President |
| Elizabeth Chichester Morrogh | Vice President |
| Robert J. Stoney | Vice President |
| Wm. Quinton Robinson | Vice President |
| William B. Porter | Vice President |
| Gifford R. Hampshire | Vice President |
| William L. Carey | Vice President |
| Mary McGowan | Vice President |

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

2. CORPORATION INFORMATION (see also Instructions, Paragraph B.3 above)

The following constitutes a listing of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 100 or fewer shareholders, a listing of all of the shareholders, **and if such corporation is an owner of the subject land**, all **OFFICERS** and **DIRECTORS** of such corporation. (Include sole proprietorships, limited liability companies and real estate investment trusts).

Name and Address of Corporation: (complete name, street address, city, state, zip code)

Sevila, Saunders, Huddleston & White, P.C., 30 King Street, Leesburg, Virginia 20176

Description of Corporation:

☒ *There are 100 or fewer shareholders and all shareholders are listed below.*

☐ *There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.*

☐ *There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.*

☐ *There are more than 500 shareholders and stock is traded on a national or local stock exchange.*

Names of Shareholders:

| SHAREHOLDER NAME <i>(First, M.I., Last)</i> | SHAREHOLDER NAME <i>(First, M.I., Last)</i> |
|---|---|
| Robert Sevila | |
| Richard Saunders, Jr. | |
| Jon Huddleston | |
| Craig White | |
| Lawrence Schonberger | |
| William Fitzpatrick | |
| | |
| | |

Names of Officers and Directors:

| NAME <i>(First, M.I., Last)</i> | Title <i>(e.g. President, Treasurer)</i> |
|---|--|
| | |
| | |
| | |
| | |

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

2. CORPORATION INFORMATION (see also Instructions, Paragraph B.3 above)

The following constitutes a listing of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 100 or fewer shareholders, a listing of all of the shareholders, and if such corporation is an owner of the subject land, all **OFFICERS** and **DIRECTORS** of such corporation. (Include sole proprietorships, limited liability companies and real estate investment trusts).

Name and Address of Corporation: (complete name, street address, city, state, zip code)

Dewberry & Davis, LLC, 8401 Arlington Boulevard, Fairfax, VA 22031

Description of Corporation:

☒ *There are 100 or fewer shareholders and all shareholders are listed below.*

☐ *There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.*

☐ *There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.*

☐ *There are more than 500 shareholders and stock is traded on a national or local stock exchange.*

Names of Shareholders:

| SHAREHOLDER NAME <i>(First, M.I., Last)</i> | SHAREHOLDER NAME <i>(First, M.I., Last)</i> |
|---|---|
| The Dewberry Companies LC, Member | |
| Eric D. Snellings | |
| Dennis M. Couture, Member | |
| | |
| | |
| | |
| | |
| | |

Names of Officers and Directors:

| NAME <i>(First, M.I., Last)</i> | Title <i>(e.g. President, Treasurer)</i> |
|---|--|
| | |
| | |
| | |
| | |

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

2. CORPORATION INFORMATION (see also Instructions, Paragraph B.3 above)

The following constitutes a listing of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 100 or fewer shareholders, a listing of all of the shareholders, **and if such corporation is an owner of the subject land**, all **OFFICERS** and **DIRECTORS** of such corporation. (Include sole proprietorships, limited liability companies and real estate investment trusts).

Name and Address of Corporation: (complete name, street address, city, state, zip code)

The Dewberry Companies LC, 8401 Arlington Boulevard, Fairfax, VA 22031

Description of Corporation:

☒ *There are 100 or fewer shareholders and all shareholders are listed below.*

☐ *There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.*

☐ *There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.*

☐ *There are more than 500 shareholders and stock is traded on a national or local stock exchange.*

Names of Shareholders:

| SHAREHOLDER NAME <i>(First, M.I., Last)</i> | SHAREHOLDER NAME <i>(First, M.I., Last)</i> |
|---|---|
| Sidney O. Dewberry, Member | |
| Barry K. Dewberry, Member | |
| Karen S. Grand Pre, Member | |
| Michael S. Dewberry, Member | |
| Thomas L. Dewberry, Member | |
| | |
| | |
| | |

Names of Officers and Directors:

| NAME <i>(First, M.I., Last)</i> | Title <i>(e.g. President, Treasurer)</i> |
|---|--|
| | |
| | |
| | |
| | |

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

3. PARTNERSHIP INFORMATION

The following constitutes a listing of all of the **PARTNERS**, both **GENERAL** and **LIMITED**, in any partnership disclosed in the affidavit.

Partnership name and address: (complete name, street address, city, state, zip)

South Auburn Limited Partnership, 25992 Lightridge Farm Road, Aldie, Virginia 20105

X (check if applicable) The above-listed partnership has no limited partners.

Names and titles of the Partners:

| NAME (First, M.I., Last) | Title (e.g. General Partner, Limited Partner, etc) |
|---|---|
| Meredith K. Light | General Partner |
| Rumsey Light, Jr. | General Partner |
| Sylvia Hook | Limited Partner |
| The Belva E. Light Irrevocable Trust | Limited Partner |
| Meredith K. Light, Beneficiary of Trust | |
| Rumsey Light, Beneficiary of Trust | |
| Sylvia L. Hook, Beneficiary of Trust | |
| | |
| | |

Check if applicable:

 Additional Partnership information attached. See Attachment to Paragraph C-3.

4. **ADDITIONAL INFORMATION**

- a. One of the following options **must** be checked:

☐ In addition to the names listed in paragraphs C. 1, 2, and 3 above, the following is a listing of any and all other individuals who own in the aggregate (directly as a shareholder, partner, or beneficiary of a trust) 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE of the land:

☒ Other than the names listed in C. 1, 2 and 3 above, no individual owns in the aggregate (directly as a shareholder, partner, or beneficiary of a trust) 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE of the land:

Check if applicable:

☐ Additional information attached. *See Attachment to Paragraph C-4(a).*

- b. That no member of the Loudoun County Board of Supervisors, Planning Commission, Board of Zoning Appeals or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or through an interest in a partnership owning such land, or as beneficiary of a trust owning such land.

EXCEPT AS FOLLOWS: (If none, so state).

Check if applicable:

☐ Additional information attached. *See Attachment to Paragraph C-4(b).*

- c. That within the twelve-month period prior to the public hearing for this application, no member of the Loudoun County Board of Supervisors, Board of Zoning Appeals, or Planning Commission or any member of his immediate household, either individually, or by way of partnership in which any of them is a partner, employee, agent or attorney, or through a partner of any of them, or through a corporation (as defined in the Instructions at Paragraph B.3) in which any of them is an officer, director, employee, agent or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has or has had any business or financial relationship (other than any ordinary customer or depositor relationship with a retail establishment, public utility, or bank), including receipt of any gift or donation having a value of \$100 or more, singularly or in the aggregate, with or from any of those persons or entities listed above.

EXCEPT AS FOLLOWS: (If none, so state).

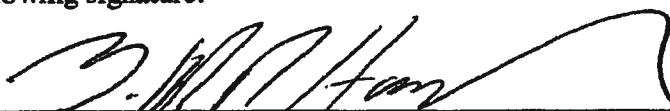
Check if applicable:

☐ Additional information attached. *See Attachment to Paragraph C-4(c).*

D. COMPLETENESS

That the information contained in this affidavit is complete, that all partnerships, corporations (as defined in Instructions, Paragraph B.3), and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, OR LESSEE of the land have been listed and broken down, and that prior to each hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including any gifts or business or financial relationships of the type described in Section C above, that arise or occur on or after the date of this Application.

WITNESS the following signature:

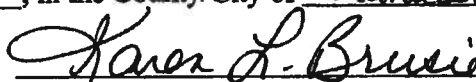


check one: ☐ Applicant or ☒ Applicant's Authorized Agent

Gifford R. Hampshire

(Type or print first name, middle initial and last name and title of signee)

Subscribed and sworn before me this 18th day of November 2009, in the State/Commonwealth of Virginia, in the ~~County~~ City of Manassas.



Notary Public

My Commission Expires: May 31, 2013

Notary Registration Number: 368145



NORTHERN VIRGINIA ELECTRIC COOPERATIVE ARCOLA SUBSTATION EXTENDED PROJECT JUSTIFICATION

Project Narrative

Arcola Substation is an existing substation located along Light Ridge Farm Road (VA Route 705) approximately 2 miles south of Braddock Road. These special exception, minor special exception and commission permits propose the addition of six (6) new distribution circuits to maintain the capacity of the substation in the rapidly growing area of southern Loudoun County. The Commission Permit is requested because the existing substation does not currently have one. The Special Exception is requested for expansion of the existing substation. The Minor Special Exception is for a modification of the usual wall and deciduous canopy tree buffer with a ten-foot chain link fence with slat inserts to provide the required 95% opacity and evergreen tree buffer.

Issues for Consideration

The Special Exception has been evaluated using the Issues for Consideration" in Section 6-1310 of the Revised 1993 Loudoun County Zoning Ordinance. Each individual response is found below:

- A. *Relationship of Development to Comprehensive Plan* – Chapter Eight of the Loudoun County Comprehensive Plan calls for development in the transitional area that will support the various residential and commercial uses that the County proposes in the area. The existing substation is insufficient for the proposed scope of future development, as outlined by the Comprehensive Plan. The proposed substation expansion will allow the planned development to be constructed in the future with no negative effects to the electrical infrastructure. Chapter 3 of the County's Comprehensive Plan calls for an emphasis on growth in the Dulles South Planning Area. In order to meet the Plan's goals of more residential development, additional transformers will be required to meet the new power loadings. The proposed substation expansion complies with the environmental, cultural, land use, economic and fiscal policies of the Comprehensive Plan by facilitating residential growth where the Comprehensive Plan envisions it. By increasing the availability of power to meet development envisioned by the Comprehensive Plan, the proposed substation expansion also will contribute to the welfare and convenience of the public and will facilitate enlargement of the tax base.
- B. *Adequate Safety from Fire Hazards* - The proposal provides adequate safety from fire hazards and will have effective measures of fire control. There will be an automatic relay designed to isolate the equipment affected by any fire. Further, NOVEC has developed a standard protocol in the event of the automatic relays are not sufficient to contain the fire. This protocol is also set forth in the Brambleton Substation Commission Permit. The protocol is as follows:"In the event there is a fire in the substation, NOVEC would notify Loudoun County Fire and Rescue (via 911 or other direct means) of the situation and advise them not to enter the station until a NOVEC substation crew has arrived on site and assessed the situation. Fire personnel would also be advised to stay clear of the fence and all power lines entering or exiting the substation. NOVEC would advise that all lines shall be considered energized until a NOVEC

representative advises them otherwise. With the exception of the mineral oil in the transformers, the substation contains little in the way of combustible fuel. However, because of the small amount of mineral oil in the transformers, water is not the best option for putting out the fire. In most cases, the fire is allowed to burn until the fuel is exhausted. NOVEC would not consider there to be any salvage value to equipment and its efforts would be concentrated on containing the fire through contained burn-out, as opposed to fire suppression. Likewise, NOVEC would advise Loudoun County Fire and Rescue that it should be most concerned with containment and preventing any fire from spreading. NOVEC suggests a condition to the permits requested that would reflect a commitment to the automatic fire-containment relays and the above fire-fighting protocol, subject to approval of Loudoun County Fire and Rescue.'

- C. *Noise Impacts* - There will be no noise emanating from the site. Further, the proposed use, being an expansion of an existing substation, is compatible with the existing substation use and the farm that the substation adjoins.
- D. *Lighting Impacts* - There will be no light or glare emanating from the site. A note has been added to the application stating that downward directed sodium lights will be used onsite. This lighting is consistent with all recent NOVEC substations built in Loudoun County and has been satisfactory. The lights will only be used during an emergency or for a maintenance issue.
- E. *Relationship to Adjacent Uses* - The impacts to the adjacent properties will be minimal. The special exception area abuts to a property classified as a 100 acre farm with residential structures to the north of the site. A modified buffer will be provided to provide year round screening. The buffer will be modified to include evergreen trees to allow the buffer to screen the substation year-round. A 10' chain link fence with slats will also be provided for screening and security purposes. The remaining parcels that the subject property is adjacent to contain electrical substation and are considered similar uses. The proposed addition will be similar to the existing substation.
- F. *Landscaping* - The expansion will add buffers from the adjoining farm where none exist for the existing substation. The new construction will improve the screening of the existing site. No buffers or storm water management was required for the site when the current substation was built; however, with this special exception, buffers will be provided. A modification to the buffer requirement in Sections 5-1403(D), 5-1414(B) and 5-1407(A) of the Revised 1993 Zoning Ordinance will substitute evergreen trees for canopy trees to ensure a year round screening for the site. Storm water management and best management practices will also be used in the design to minimize any impact on the surrounding properties. Therefore, the proposal provides sufficient screening and buffering on the site to adequately screen surrounding uses.
- G. *Preservation of Features - History And Natural Features* - The site is not noted as having a historical district or any natural features on the Loudoun County Map; therefore no preservation or protection is required. The project is not located within any recorded floodplains. No possible wetlands or future wetlands are shown on the site, per the Loudoun County Map. No hydric soils are known to be located on the site. The proposed substation will maintain the existing drainage divides.
- H. *Impact to Existing Conditions* - There are no known topographic, physical, natural, scenic, archeological or scenic features of significant importance with which the proposed substation expansion will interfere. As the expansion area is but a small component of a nearly 400-acre cattle farm of open pasture, and the use does not result in any human activity on site, the expansion will not damage existing animal habitat, vegetation, water quality or air quality. A letter has been submitted to the Army Corps of Engineers stating that no wetlands were found on the property.

- I. *Public Welfare* - The proposed expansion will contribute to and promote the welfare of the public by providing additional electric distribution capacity in the area. The impacts to the adjacent properties will be minimal. The property abuts to a 400 acre farm with residential structures to the north of the site. A modified buffer will be provided to provide year round screening. The buffer will be modified to include evergreen trees to allow the buffer to screen the substation year-round. A 10' chain link fence with slats will also be provided for screening and security purposes. The remaining parcels that the subject property is adjacent to contain electrical substation and are considered similar uses. The proposed addition will be similar to the existing substation. The load projected for the next three years to be served by Arcola Substation exceeds the capacity of the station, hence the need for expansion. This project will provide 30 MVA of additional capacity with 6 new distribution circuits needed to serve this fast growing area as well as improving reliability through the addition of adding a second transformer. If the substation is not expanded the electrical grid will not be sufficient to serve the planned development in the area.
- J. *Traffic Analysis* - The proposed substation expansion will not negatively impact orderly and safe road development because no additional roadway infrastructure is needed for the expansion. The expanded area will continue to be served by existing Lightridge Farm Road. The traffic impact to the surrounding roads will be negligible. The existing substation is served by one (1) maintenance vehicle per month. The additional substation will also be served during the same maintenance trip, causing no additional traffic to the site. The traffic generated from the site will remain at one vehicle per month.
- K. *Existing Structures* - N/A – There are no permanent structures, neither existing nor proposed, therefore this issues is not applicable.
- L. *Public Facilities Service* – The proposed substation expansion does not require any service by public facilities. The site is unmanned, aside from a monthly maintenance visit, therefore no sanitary or water facilities will be required.
- M. *Effects on Groundwater* – The proposed substation expansion will not have any effect on the groundwater. A geotechnical report will be provided with the site plan showing the depth of any groundwater. We recognize that this site is located within the Bull Run watershed and any runoff generated will eventually reach the Occoquan Reservoir. Best Management Practices, in the form of filterstrips, or a similar device based upon further engineering, will be provided to remove any pollutants from the site's runoff. Any water that leaves the site and enters the groundwater supply will also have been treated; therefore we do not anticipate any negative impacts to the groundwater supply.
- N. *Soils* – The proposed substation expansion will be designed in accordance with the geotechnical recommendations. A geotechnical report will be provided with the site plan and will test all soils within the limits of the site; therefore we do not anticipate any change in the structural capacity of the surrounding soils.
- O. *Impacts to Road Development* – The proposed substation expansion will not have any adverse impact on the surrounding road network because no additional vehicle trips will be generated from the site. The traffic generated from the site will remain at one vehicle per month.
- P. *Encourage Economic Development* - The expansion will assist in providing desirable employment and enlarging the tax base by providing additional electric distribution capacity for

any economic development activities consistent with the Comprehensive Plan. Currently the substation is not adequate to serve the anticipated needs of the area.

- Q. Needs of Agriculture, etc* - The additional electric distribution capacity that would be provided considers the needs of agriculture, industry and businesses in future growth by anticipating the increase in power before the need arises.
- R. Adequate Infrastructure* - The proposed expansion will not require any additional on or off-site infrastructure. Therefore, Item "R" of Section 6-1310 does not apply.
- S. Odors* – No odors will be generated by the site, therefore, Item "S" of Section 6-1310 does not apply.
- T. Mitigation of Construction Traffic* – The construction of the substation expansion will not impact existing neighborhoods or school areas because the existing substation is located in a rural area away from such areas. Therefore, Item "T" of Section 6-1310 does not apply.

Justification for Buffer Modification

Visual buffering and mandated safety requirements dictate a chain link fence with an evergreen buffer as a modification to the usual wall and deciduous canopy tree buffer. By providing this required safety and visual buffering, the modification improves the existing regulation and exceeds the public purpose of the existing regulation because such required safety and more complete visual screening would not be possible under the existing regulation.. Therefore, it is appropriate to that the usual wall and deciduous canopy tree buffer be modified pursuant to the Minor Special Exception Request.



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May 25, 2010

Sophia Fisher, Planner
County of Loudoun
Department of Building and Development
1 Harrison Street, SE
PO Box 7000
Leesburg, VA 20177-7000

Re: Case Name: **NOVEC – Arcola Substation**
Case Number: **SPEX-2009-0032, SPMI-2009-0010, CMPT-2009-0011**

Dear Ms. Fisher:

Following are our responses to the review comments made in the county's letters dated May 25, for the above referenced project.

ZONING ADMINISTRATION

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| 1. | The revision date on the SPEX plat should reflect the date of the latest revisions. <i>Response: The Revision date has been changed to May 25, 2010. Please see sheets 1 through 5.</i> |
| 2. | Add a condition that a lot consolidation application will be approved prior to SPEX implementation. <i>Response: Note was already on plan, please see Sheet 1 note number 31.</i> |
| 3. | The SPEX plat must reflect that a SPEX is requested to eliminate the front yard buffer and maintain what currently exists. <i>Response: Note was already on plan, please see sheet 1 note 8.</i> |
| 4. | Revise area of existing parcel. <i>Response: The area of the existing parcel has been change to 0.54 acres.</i> |

We trust that these responses will adequately address all comments on the subject plan. Please call me at (703) 468-2235 if you have any questions or need additional information.

Sincerely,
Dewberry

Ignacio Licht
Project Manager

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May 12, 2010

Sophia Fisher, Planner
County of Loudoun
Department of Building and Development
1 Harrison Street, SE
PO Box 7000
Leesburg, VA 20177-7000

Re: Case Name: **NOVEC – Arcola Substation**
Case Number: **SPEX-2009-0032, SPMI-2009-0010, CMPT-2009-0011**

Dear Ms. Fisher:

Following are our responses to the review comments made in the county's letters dated March 18, 2010 and April 15, 2010 and other agency comments attached, for the above referenced project.

ZONING ADMINISTRATION

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| I. | Critical Issues: None. | |
| II. | Conformance With TR-3 Zoning Regulations | |
| | 1. | <p>Original comment: <i>Per 2-1503(B), no building shall be located within 25' of any property line or 35' from any other right of way or private access easement. A required yard is located along the perimeter of the lot and the dimensions are as established by the district regulations. As these are two separate lots, the required yards are required along the perimeter of both lots. Show the minimum required yards on parcel 4A and the required 25' yard between both parcels to demonstrate the building limitations. The substation structures are not subject to the minimum building yard as they do not meet the definition of a building. Note that there is no minimum yards along the northern boundary of the special exception area as it does not constitute a property line, therefore, remove the "25' building setback" shown. There currently exists 2 separate parcels, and as such, yards are applicable where there are property lines. There is no requirement to combine the parcels and no assurance that the 2 parcels will be consolidated. The requirement to provide a yard and a buffer yard between the 2 properties does not go away until a boundary line adjustment has been filed. Further, until a lot consolidation is approved, this application is not an expansion of an existing use because the use does not currently exist on a parcel. In order to treat the 2 parcels as one, the applicant must agree to a condition that the parcels will be combined prior to implementation of the SPEX use. Staff recommends that sheet 1 of 5 include a note that the parcels will be consolidated prior to the implementation of the SPEX use.</i></p> <p><i>Response: Note 31 was been added to sheet 1 of 5 stating "These parcels will be consolidated prior to the implementation of the SPEX use."</i></p> |
| | 2. | <p>Original comment: <i>Parcel 4A is included in this application as an expanded SPEX use; therefore, all requirements of the Ordinance must be fulfilled unless modified. A Type 4 front Buffer Yard is required adjacent to Lightridge Farm Road. If the required Type 4 front buffer cannot be provided, the applicant must seek a modification (see below). Staff notes the addition to the SPEX to modify the landscaping provisions to eliminate the requirement to provide a front yard buffer and to modify the plantings for a Type 4 side/year buffer yard.</i></p> <p><i>Response: Acknowledged. We are asking to modify the landscaping front yard buffer and the type of buffer on the side and rear yard, see modified planting tabulation on sheet 4 of 5.</i></p> |
| | 3. | <p>Original comment: <i>Add a note to sheet 1 of the SPEX plat stating that, except for the requested landscaping modification, all other landscaping will be provided in accordance with the Ordinance. Revise Note 8 on sheet 1 to eliminate the "conceptual in nature" sentence and revise the note to read "A modification to revise the plant material of the Type 4 side/year buffer yard, as proposed on sheet 4 of 5, is requested with this SPEX application, in addition to a request to eliminate the</i></p> |

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| | | <p>requirement for a front yard buffer along Lightridge Farm Road. Unless otherwise modified, landscaping will be provided in accordance with the Zoning Ordinance".</p> <p><i>Response: Note 8 on sheet 1 of 5 was revised and now stating, "A modification to revise the plant material of the Type 4 side/year buffer yard, as proposed on sheet 4 of 5, is requested with this SPEX application, in addition to a request to eliminate the requirement for a front yard buffer along Lightridge Farm Road. Unless otherwise modified, landscaping will be provided in accordance with the Zoning Ordinance."</i></p> |
| | 4. | <p>Original comment: Show the access point to the substation to demonstrate that it is being accessed by a private access easement. (§5-621(D)). Provide the deed book and page of the private access easement to verify. A recorded easement in necessary until such time as a parcel consolidation is approved and recorded.</p> <p><i>Response: Note 32 has been added to sheet 1 of 5 stating "The Arcola substation (BLAD-2010-0017) boundary line adjustment has been submitted to Loudoun County. The BLAD will be approved prior to the SPEX. We have removed the ingress easement."</i></p> |
| | 5. | <p>Revise Note 28 and 29 on sheet 1 to reference the Loudoun County GIS "Map" not "Mapper".</p> <p><i>Response: Notes 28 and 29 on sheet 1 of 5 was revised to reference the Loudoun County GIS Map.</i></p> |
| | 6. | <p>Correct the Ordinance citation in paragraph F, page 2, of the Extended Project Justification. Section 5-1603 does not exist. The applicant seeks to modify the landscaping requirements pursuant to Section 5-1403(D). The required plant material appears in Section 5-1414(B) and the requirement to provide the buffer yard along the perimeter of the lot or parcel is located at 5-1407(A).</p> <p><i>Response: The sentence on page 2, paragraph F of the Extended Project Justification letter that referred to Section 5-1603 was revised to read, "A modification to the buffer requirement in Sections 5-1403(D), 5-1414(B) and 5-1407(A) of the Revised 1993 Zoning Ordinance will substitute evergreen trees for canopy trees to ensure a year round screening for the site."</i></p> |

ENVIRONMENTAL

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| 1. | <p>Staff requests more information regarding the berm that is proposed to intercept storm runoff that could include mineral oil or other hydrocarbons, including but not limited to a typical cross section and description of berm material. Staff also recommends a condition of approval that details how mineral oil and other hydrocarbon spills and leaks will be contained and treated.</p> <p><i>Response: A typical section detail with a description of the berm materials has been added to sheet 2 of 5. Two notes, "Containment and Diversionary Structures" and "Spill Response Procedures", have been added to sheet 2 of 5 detailing how spills are contained and what actions are taken if a spill occurs."</i></p> |
| 2. | <p>Staff requests verification about the presence of two-way communication infrastructure that will be incorporated into the proposed substation. According to NOVEC's website at http://www.novec.com/About NOVEC/Technology.cfm , 18 of the 52 existing substations in the service territory were to include fiber optic connectivity between substations and NOVEC offices as of 2006. Two-way connectivity helps improve the "timely delivery of these services to businesses and households as development occurs," described as a County goal on page 2-23 of the Revised General Plan.</p> <p><i>Response: Note 33 was been added to sheet 1 of 5 stating "NOVEC extended its fiber optics substation network to the Arcola substation during 2009."</i></p> |

We trust that these responses will adequately address all comments on the subject plan. Please call me at (703) 468-2235 if you have any questions or need additional information.

Sincerely,
Dewberry

Ignacio Licht
Project Manager

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February 3, 2010

Sophia Fisher, Planner
County of Loudoun
Department of Building and Development
1 Harrison Street, SE
PO Box 7000
Leesburg, VA 20177-7000

RECEIVED

FEB 19 2010

LOUDOUN COUNTY
DEPARTMENT OF PLANNING

Re: Case Name: **NOVEC – Arcola Substation**
Case Number: **SPEX-2009-0032, SPMI-2009-0010, CMPT-2009-0011**

Dear Ms. Fisher:

Following are our responses to the review comments made in the county's letter dated January 4, 2010 and other agency comments attached, for the above referenced project.

ZONING ADMINISTRATION

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| I. | Critical Issues: None. | |
| II. | Conformance With TR-3 Zoning Regulations | |
| | 1. | <p>Per 2-1503(B), no building shall be located within 25' of any property line or 35' from any other right of way or private access easement. A required yard is located along the perimeter of the lot and the dimensions are as established by the district regulations. As these are two separate lots, the required yards are required along the perimeter of both lots. Show the minimum required yards on parcel 4A and the required 25' yard between both parcels to demonstrate the building limitations.</p> <p><i>Response: As stated in the Extended Project Justification, the Special Exception is requested for the expansion of the existing substation. Upon approval of the Special Exception (and the accompanying Commission Permit and Minor Special Exception) the existing substation parcel, identified as Parcel 4A (PIN 251-47-5326) will be consolidated with the 3.88-acre portion of Parcel 4 (PIN 208-27-0686) through a deed of boundary line adjustment. Because Parcel 4A and the 3.88-acre portion of parcel 4 are intended by these applications and the boundary line adjustment to exist as a single, consolidated parcel, the minimum yards are not shown on current 4A or between 4A and the portion of to-be-consolidated Parcel 4. By virtue of the future consolidation intended by this application it is appropriate to retain the "25' building yard" shown along 3.88 expansion boundary because it constitutes a future property boundary upon approval of these applications</i></p> |
| | 2. | <p>Clearly show the property line of both parcels and use a different marking to show the limits of the SPEX use as the marking used is commonly the same for property line.</p> <p><i>Response: The property lines are shown for the existing parcel 4A. The special exception limits will be the future property line once these applications are approved. A boundary line adjustment will be filed immediately after approval of these applications. Therefore the heavy bold property line and special exception limits are the ultimate lot configuration.</i></p> |
| | 3. | <p>Correct the term "25' building setback" with "25' building yard" as a yard and a setback are not the same and are regulated by different requirements (§2-1503(B)).</p> <p><i>Response: All references to a "25' Building Setback" have been replaced with the correct "25' Building Yard." See Sheet 1 of 4.</i></p> |
| | 4. | <p>Show the location of the private access easement that accesses the Property to demonstrate that no building encroaches into the 35' minimum required yard. (§2-1503(B)).</p> <p><i>Response: A 22' ingress egress easement has been shown to access the 3.88 acres of the portion of lot 4. This ingress egress easement will be null when the boundary line adjustment is approved and recorded.</i></p> |

| III. | Conformance With Specific Use Regulations | |
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| 5. | <p>Provisions within Section 5-600 may be modified in accordance with Section 6-1300 upon a finding that the modification achieves an innovative design, improves upon the existing regulation, preserves the County's historic or archeological heritage, or otherwise exceeds the public purpose of the existing regulation. The applicant has provided no information with which to evaluate the request for a modification. Without such information, the landscape modification request cannot be evaluated. Provide a justification for all modifications.</p> <p><i>Response: It must be understood that the intended use is for an electric substation. Therefore, visual buffering and mandated safety requirements dictate a chain link fence with an evergreen buffer as a modification to the usual wall ad deciduous canopy tree buffer. By providing this required safety and visual buffering, the modification improves the existing regulation and exceeds the public purpose of the existing regulation. This statement justifying the modification has been inserted in the Extended Project Justification.</i></p> | |
| 6. | <p>A utility distribution substation shall have a minimum Type 4 buffer yard around the perimeter of the site. The applicant has requested a modification to the required buffer to allow additional evergreens to replace the canopy and to allow an 8' instead of 6' fence. The fence shall provide 95% opacity unless otherwise modified. The applicant has not proposed an alternative planting schedule, although one needs to be approved as part of this applicant. Staff recommends that instead of 2 canopy trees per 100 linear feet for a side yard, 2 evergreens per 100 linear feet be planted. All other landscaping values will remain the same. (§5-618(D)).</p> <p><i>Response: please note that the proposed chain link fence is 10' high not 8'. The chain link fence will be slated, as was requested by the County with respect to the Cochran Mill Substation Commission Permit. This will provide opacity along with the requested evergreen screening. The applicant has no objection to planting 2 evergreens per 100 linear feet in lieu of the usual two canopy trees per 100 linear feet. An alternative planting schedule has been provided on sheet 4.</i></p> | |
| 7. | <p>Parcel 4A is included in this application as an expanded SPEX use; therefore, all requirements of the Ordinance must be fulfilled unless modified. A Type 4 front Buffer Yard is required adjacent to Lightridge Farm Road. If the required Type 4 front buffer cannot be provided, the applicant must seek a modification (see below)</p> <p><i>Response: Parcel 4A contains a substation that has existed on Parcel 4A for many years. As such it is lawfully nonconforming as to any front buffer yard requirements. It is not included in this application as an expanded SPEX use. There will no expansion of use on Parcel 4 pursuant to these applications. The expansion and change of use is solely on the 3.88-acre portion of Parcel 4. Therefore, there is no legal basis to impose a buffering requirement on Parcel 4. Further given the proximity of the existing substation structures to Lightridge Farm Road, there is no way that a Type 4 front buffer can be provided. Therefore, the applicant will seek a modification of this requirement pursuant to § 5-1403 (C).</i></p> | |
| 8. | <p>Add a note to sheet 1 of the SPEX plat stating that, except for the requested landscaping modification, all other landscaping will be provided in accordance with the Ordinance.</p> <p><i>Response: Note #8 has been modified to state that except for the requested modification, all other landscaping will be provided per the 1993 Revised Loudoun County Zoning Ordinance.</i></p> | |
| 9. | <p>Revise the note on the bottom left side of all SPEX plat sheets that Section 5-621(B), in addition to 5-618(D), requires a Type 4 Buffer Yard. A modification to 5-621(B) must also be requested.</p> <p><i>Response: The descriptive note from the SPEX on the lower left side of Sheet 1 has been modified to add Section 5-621(B) to the application.</i></p> | |
| 10. | <p>Show the access point to the substation to demonstrate that it is being accessed by a private access easement. (§5-621(D)).</p> <p><i>Response: A 22' access easement has been shown from the northern entrance of the existing NOVEC substation connecting the proposed expansion substation to Lightridge Farm Road.</i></p> | |
| IV. | Conformance with Buffering and Screening Regulations | |
| 11. | <p>Buffer yards shall be located along the perimeter of a lot. Parcel 4 is required to have a Type 4</p> | |

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| | | <p>Buffer Yard along the northern parcel line, not along the limits of the special exception. If an alternate landscaping area is proposed, a modification must be requested as part of this special exception application. Revise the location of the northern buffer yard or request an additional modification. (§§5-1403(C) and 5-1407(A)).</p> <p><i>Response: As stated in the Extended Project Justification, the Special Exception is requested for the expansion of the existing substation. Upon approval of the Special Exception (and the accompanying Commission Permit and Minor Special Exception) the existing substation parcel, identified as Parcel 4A (PIN 251-47-5326) will be consolidated with the 3.88-acre portion of Parcel 4 (PIN 208-27-0686) through a deed of boundary line adjustment. Because Parcel 4A and the 3.88-acre portion of parcel 4 are intended by these applications and the boundary line adjustment to exist as a single, consolidated parcel, with a new property line to the north being established, it is appropriate and consistent with the spirit and letter of the ordinance that the buffer yard be placed along the limits of the special exception, which shall include a new property line to the north. Under these circumstances, placing the buffer yard along the northern property line of lot 4 will not serve the purpose ordinance because it will not screen the balance of lot 4 from the substation use. Therefore, the applicant will seek a modification of this requirement pursuant to § 5-1403(C)</i></p> |
| | | <p>A Type 4 front Buffer Yard is required along Lightridge Farm Road. If the required landscaping cannot be provided, the applicant may seek a modification or propose an alternative buffer to be part of this SPEX application pursuant to 5-1403(C).</p> <p><i>Response: Parcel 4A contains a substation that has existed on Parcel 4A for many years. As such it is lawfully nonconforming as to any front buffer yard requirements. It is not included in this application as an expanded SPEX use. There will no expansion of use on Parcel 4 pursuant to these applications. The expansion and change of use is solely on the 3.88-acre portion of Parcel 4. Therefore, there is no legal basis to impose a buffering requirement on Parcel 4A. Further given the proximity of the existing substation structures to Lightridge Farm Road, there is no way that a Type 4 front buffer can be provided. Therefore, the applicant will seek a modification of this requirement pursuant to § 5-1403 (C)</i></p> |
| V. | Conformance with Special Exception Regulations | |
| | 13. | <p>An applicant shall address all of the Issues for Consideration found in Section 6-1310 unless not applicable. Each issue should be addressed individually. The applicant has only provided a general statement as to the Issues for Consideration and stated what does not apply. Address each issue in the Statement of Justification (Extended Project Justification).</p> <p><i>Response: The statement of Justification has been edited to include a list of the Issues for Consideration, as shown in Section 6-1310. Each item has been addressed individually. See the attached, "Expanded Statement of Justification."</i></p> |
| VI. | Other | |
| | 14. | <p>Revise Note 2 on sheet 1 of the SPEX plat to read "The property is zoned TR3 (-LF, -UBF, and LBR), subject to the Revised 1993 Loudoun County Zoning Ordinance. The area subject to this SPEX is zoned TR-3 (-LF and -UBF).</p> <p><i>Response: Note #2 on Sheet 1 has been updated with the suggested wording, noting that the total site contains TR3 (-LF, -UBF, and LBR), and the SPEX area contains TR-3 (-LF and -UBF).</i></p> |
| | 15. | <p>Revise note 14 as FEMA insurance rate maps do not show limits of "any floodplain overlay district". The Floodplain Overlay District is contained within the Ordinance.</p> <p><i>Response: Note #14 on Sheet 1 has been updated to change "floodplain overlay district" to "floodplain", as named on the FEMA insurance rate map.</i></p> |
| | 16. | <p>Revise Note 27 to read "Loudoun County Map" not "Mapper".</p> <p><i>Response: Note #27 on Sheet 1 has been revised to read "Loudoun County Map", instead of "Loudoun County Mapper"</i></p> |
| | 17. | <p>Add a note that there are moderate and very steep slopes on the Property, but not within the area subject to the special exception.</p> <p><i>Response: Note #9 on Sheet 1 has been modified to state that moderate and very steep slopes are contained within the property, but are not with the limits of the SPEX.</i></p> |

ENVIRONMENTAL

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| 1. | <p>The special exception plan depicts a possible underground stormwater management area located downhill of the proposed substation pad. Staff does not believe that an underground is needed, because there is enough space on site for a pond or other stormwater feature. Staff recommends that a facility be designed with a high nutrient removal capability, including but not limited to an extended enhanced detention pond, retention (wet) pond, or an array of bioretention basins (with underdrains if needed.) Runoff leaving this site will enter Bull Run, which drains to the Occoquan Reservoir, a drinking water source. Zoning Ordinance Section 6-1310(H) includes the application's impacts on water quality as an issue for consideration with a special exception.</p> <p><i>Response: After preliminary engineering, we have determined that none of the facilities listed above are adequate for the site. Due to the high percentage of impervious area the only BMP facility allowed by Loudoun which is able to treat the runoff is a series of Filterra inlets. The inlets will treat the water which will then be routed through an underground detention system. An underground detention system has been proposed due to the slopes on the eastern side of the property. The amount of earthwork required to build an embankment high enough to contain the required detention is not feasible.</i></p> |
| 2. | <p>Chapter 5 of the Facilities Standards Manual (FSM) regulates stormwater management for "hotspot" uses, where certain activities could generate runoff of hydrocarbons, trace metals, or toxicants. Staff inquires into the presence of liquids with hydrocarbons or other potentially toxic materials that are used on site, including but not limited to mineral oil. Depending on materials being stored, staff may require verification of secondary containment where these products are stored or handled, consistent with FSM Section 5.320.E.4.b.</p> <p><i>Response: After evaluating the site we have proposed an oil containment berm with agent liner in case of a leakage of mineral oils contained within the electrical transformers. See berm on sheet 1.</i></p> |
| 3. | <p>Northern Virginia Electric Cooperative has received grant money from the Federal stimulus to install "smart grid" capacity into the distribution network. Smart grid technology is incorporated to improve demand response and stabilize spikes in power demand and supply, among other goals. These priorities help achieve the "timely delivery of these services to businesses and households as development occurs," described as a County goal on page 2-23 of the Revised General Plan. Accordingly, staff encourages the applicant to incorporate smart grid technology with this application, and to educate current and future county customers about the efficiency gains available through this design.</p> <p>"NOVEC has already begun informing members about the anticipated benefits of its 'smart grid' program through press releases and other forms of communications. NOVEC routinely informs its members about programs and initiatives such as the DOE 'smart grid' program in which benefits such as improvements in system efficiency are expected."</p> |

COMPREHENSIVE PLANNING

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| | <p>Staff finds the design and visual impact of the proposed expanded equipment compound is in general conformance with Plan policies. Staff recommends that the applicant commit to the long-term maintenance and care of the proposed fence and vegetated buffer to ensure that the proposed facility is adequately screened. Staff supports the request to modify the required buffer to allow additional evergreens to replace the canopy trees and to allow an 8' instead of 6' fence.</p> <p>Staff requests that the applicant provide additional information regarding the provision of buffering along the side yards of the existing compound to better screen the facility from the roadway.</p> <p><i>Response: Acknowledged. A schedule has been included on sheet 4. please also note that the chain link fence is 10' high and not 8'.</i></p> |
| | <p>The proposed utility substation is compatible with the surrounding land uses and will provide needed infrastructure for the delivery of electrical services to households and businesses in the area. Staff finds the proposed expansion of the utility substation on the subject site is supported by the land use and energy policies of the Revised General Plan.</p> |

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| | Response: Acknowledged. |
| | Staff finds that the general location, character, and extent of the proposed utility substation expansion are in substantial accord with the Comprehensive Plan. Staff supports the approval of a Commission Permit for the proposed use. However, additional information pertaining to the buffering and screening of the existing compound and proposed lighting for the subject site have been requested to further evaluate the application. Response: Acknowledged. Please see modification waivers for the buffers. The modified buffer schedule on sheet 4. Note 24 describing the downward directed low sodium lights only used during an emergency or maintenance issues. |

HEALTH DEPARTMENT

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| 1. | The Health Department recommends approval of this application. The proposed development will require the applicant later to apply for evaluations by the Health Department of the existing septic systems and wells serving the existing houses before a waiver or any other kind of subdivision can be approved. The plat reviewed was prepared by Dewberry and was dated 20 November 2009. Response: Acknowledged. |
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VDOT

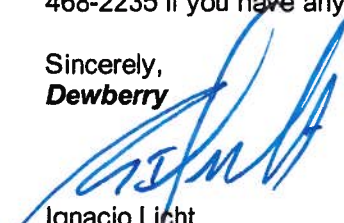
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| 1. | We have reviewed the above application as requested in your November 30, 2009 transmittal (received December 7, 2009). We have no objection to approval of this application. Response: Acknowledged. |
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FIRE DEPARTMENT

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| 1. | Thank you for the opportunity to review the above captioned application. The Fire and Rescue Planning Staff, in agreement with the Fire Marshal's Office, has no objection to the application as presented. Staff appreciates the applicant commitment to fire safety and their offer to establish the automatic fire-containment relays and the protocol as a condition of approval. It would be helpful to receive the final version of the protocol in writing prior to the facility addition being operational so it could be disseminated to first responders. Response: Acknowledged. Final protocol will be sent to the fire department prior to energizing the substation expansion. <i>(ATTACHED IS FINAL PROTOCOL)</i> |
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We trust that these responses will adequately address all comments on the subject plan. Please call me at (703) 468-2235 if you have any questions or need additional information.

Sincerely,
Dewberry



Ignacio Licht
Project Manager

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